



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/587,852 | 07/28/2006 | Nicolas Sarrut | 294254US0PCT | 9763 |
| 22850 | 7590 | 10/01/2008 | EXAMINER | |
| OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. | | | EOM, ROBERT J | |
| 1940 DUKE STREET | | | ART UNIT | PAPER NUMBER |
| ALEXANDRIA, VA 22314 | | | 4153 | |
| | | | NOTIFICATION DATE | DELIVERY MODE |
| | | | 10/01/2008 | ELECTRONIC |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com
oblonpat@oblon.com
jgardner@oblon.com

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/587,852 | SARRUT ET AL. | |
| | Examiner | Art Unit | |
| | ROBERT EOM | 4153 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on ____.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 8-14 is/are pending in the application.
 - 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) Claim(s) ____ is/are allowed.
- 6) Claim(s) 8-14 is/are rejected.
- 7) Claim(s) ____ is/are objected to.
- 8) Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 28 July 2006 is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. ____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

| | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____ . |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>11/28/2006</u> . | 6) <input type="checkbox"/> Other: ____ . |

DETAILED ACTION

Priority

1. It is noted that this application appears to claim subject matter disclosed in prior Application No. PCT/FR05/50053, filed 01/28/2005. A reference to the prior application must be inserted as the first sentence(s) of the specification of this application or in an application data sheet (37 CFR 1.76), if applicant intends to rely on the filing date of the prior application under 35 U.S.C. 119(e), 120, 121, or 365(c). See 37 CFR 1.78(a). For benefit claims under 35 U.S.C. 120, 121, or 365(c), the reference must include the relationship (i.e., continuation, divisional, or continuation-in-part) of all nonprovisional applications. If the application is a utility or plant application filed under 35 U.S.C. 111(a) on or after November 29, 2000, the specific reference to the prior application must be submitted during the pendency of the application and within the later of four months from the actual filing date of the application or sixteen months from the filing date of the prior application. If the application is a utility or plant application which entered the national stage from an international application filed on or after November 29, 2000, after compliance with 35 U.S.C. 371, the specific reference must be submitted during the pendency of the application and within the later of four months from the date on which the national stage commenced under 35 U.S.C. 371(b) or (f) or sixteen months from the filing date of the prior application. See 37 CFR 1.78(a)(2)(ii) and (a)(5)(ii). This time period is not extendable and a failure to submit the reference required by 35 U.S.C. 119(e) and/or 120, where applicable, within this time period is

considered a waiver of any benefit of such prior application(s) under 35 U.S.C. 119(e), 120, 121 and 365(c). A benefit claim filed after the required time period may be accepted if it is accompanied by a grantable petition to accept an unintentionally delayed benefit claim under 35 U.S.C. 119(e), 120, 121 and 365(c). The petition must be accompanied by (1) the reference required by 35 U.S.C. 120 or 119(e) and 37 CFR 1.78(a)(2) or (a)(5) to the prior application (unless previously submitted), (2) a surcharge under 37 CFR 1.17(t), and (3) a statement that the entire delay between the date the claim was due under 37 CFR 1.78(a)(2) or (a)(5) and the date the claim was filed was unintentional. The Director may require additional information where there is a question whether the delay was unintentional. The petition should be addressed to: Mail Stop Petition, Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

If the reference to the prior application was previously submitted within the time period set forth in 37 CFR 1.78(a), but not in the first sentence(s) of the specification or an application data sheet (ADS) as required by 37 CFR 1.78(a) (e.g., if the reference was submitted in an oath or declaration or the application transmittal letter), and the information concerning the benefit claim was recognized by the Office as shown by its inclusion on the first filing receipt, the petition under 37 CFR 1.78(a) and the surcharge under 37 CFR 1.17(t) are not required. Applicant is still required to submit the reference in compliance with 37 CFR 1.78(a) by filing an amendment to the first sentence(s) of the specification or an ADS. See MPEP § 201.11.

Specification

2. The abstract of the disclosure is objected to because it is not a single paragraph, see: "Fig. 6D". Correction is required. See MPEP § 608.01(b).

Drawings

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: Fig. 1 outlet 6 (P15/L2). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1 and 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
3. The term "overhanging" in claim 1 is a relative term which renders the claim indefinite. The term "overhanging" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. For purposes of examining, the Merriam-Webster's definition of "overhanging" as "to project over" will be used to interpret the claim.
5. Claim 14 recites the limitation "the cap" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 8-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Jedrzejewski et al. (US 2003/0013203 A1).

Regarding claim 8, Jedrzejewski et al. discloses an on-chip laboratory comprising a support (Abstract, see: microanalysis chip comprises a body), at least one fluidic network (Fig. 20, see: distribution network 224), at least one fluid inlet orifice connected

to the fluidic network (Fig. 20, see: intersection with common delivery channel 220) and at least one fluid outlet orifice connected to the fluidic network (Fig. 20, see: intersection with transfer separation channels 226), a thin layer integral with the support and in which the fluidic network and an electronebulization nozzle are made (Fig. 27, see: top surface of microanalysis chip 200), the electronebulization nozzle overhanging relatively to the support and comprising a channel (Fig. 27, see: nozzle 227 projecting over the chip assembly 100, and discharge portion 226c), one end of which is connected to the fluidic network and the other end of which forms said fluid outlet orifice (Fig. 27 and Fig. 28), the channel being fitted with electrical conduction means forming at least one electrode ([0138], see: electrodes may be included at various points in the fluid channels; [0151], see: electrospray nozzle), wherein the thin layer is a layer fixed by direct sealing onto the support (Fig. 27).

Regarding claim 9, Jedrzejewski et al. discloses all of the claim limitations as set forth above. Jedrzejewski et al. further discloses the support is in a semiconducting material ([0068], see: base 22 comprises a micromachinable material such as silicon), the electrical conduction means are a doped portion of said support ([0138], see: processes for incorporating such electrodes are described in USP 5,750,015).

Regarding claim 10, Jedrzejewski et al. discloses all of the claim limitations as set forth above. Jedrzejewski et al. further discloses the support is in a conducting material ([0068], see: base 22 comprises a micromachinable material such as silicon).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

11. Claims 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jedrzejewski et al. (US 2003/0013203 A1), as applied to claims 8-10 above, in view of Yobas et al. (US 2003/0180965 A1).

Regarding claims 11-12, Jedrzejewski et al. discloses all of the claim limitations as set forth above. Jedrzejewski et al. further discloses a cover hermetically covering the fluidic network (Fig. 27, see: lid 230).

Jedrzejewski et al. does not explicitly disclose the cover being provided with a fluid access means at the fluid inlet orifice and being provided with said electrical conduction means.

Yobas et al. teaches a micro-fluidic device (Abstract) with a channel and inlet orifice (Fig. 5, see: orifice 204 and channel 204a). A cover plate (Fig. 5, see: cover plate 194) is bonded to the substrate (Fig. 5, see: substrate 72). The cover plate has an orifice (Fig. 5, see: cover plate orifice 200) which provides access to the orifice 204 of the device. The cover plate further has electrodes which provide the electrical conduction means of the device (Fig. 5, see: electrodes 190 and 192; [0050]).

Jedrzejewski et al. and Yobas et al. are analogous because both references are directed towards microfluidic devices for the purpose of electrospray ionization (Claim 31).

It would have been obvious to one having ordinary skill in the art at the time of the invention to use the cover with a fluid access means to the inlet orifice as well as having electrical conduction means on the microfluidic device of modified Jedrzejewski et al., as taught by Yobas et al., since an inlet orifice provides a way for fluids to be dispensed into, withdrawn or exchanged in the microfluidic device ([0051]). Integrating electrodes into the lid enhances the functionality of the device ([0051]) and prevents any possible shorts or electrical issues.

12. Regarding claim 13, modified Jedrzejewski et al. discloses all of the claim limitations as set forth above. Jedrzejewski et al. further discloses the cover is in a conducting material (Fig 27., see: lid 230 and microanalysis chip 200; Claim 8, see: silicon).

13. Regarding claim 14, modified Jedrzejewski et al. discloses all of the claim limitations as set forth above. Jedrzejewski et al. further discloses the cover is in a semiconducting material (Fig 27., see: lid 230 and microanalysis chip 200; Claim 8, see: silicon), the electrical conducting means comprising a doped portion of the cap.

Conclusion

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ROBERT EOM whose telephone number is (571)270-7075. The examiner can normally be reached on Mon.-Thur., 9:00am-5:00pm, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Basia Ridley can be reached on (571)272-1453. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Tony G Soohoo/
Primary Examiner, Art Unit 1797
AU 4153 TA

/R. E./
Examiner, Art Unit 4153